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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,811	07/10/2001	Shane C. Hu	303.739US1	7882

21186 7590 09/02/2005

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EXAMINER	
NAMAZI, MEHDI	

ART UNIT	PAPER NUMBER
2189	

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/901,811	HU ET AL.	
	Examiner	Art Unit	
	Mehdi Namazi	2189	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-64* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11-64* is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1/10/05; 4/8/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to amendment filed April 8, 2005.

Response to Arguments

2. Applicant's arguments with respect to claims 1, and 11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-5, 7, 9, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Diehl et al. (US. 6,219,725).

As per claims 1, Diehl teaches a cache memory device (fig. 1, element 13, it shows a memory, however specifically doesn't indicate it is a cache memory and it is

not supported by the body of the claim), comprising: a plurality of memory cell (any memory is made of plurality of cells inherently); and at least one register adapted for storing access information for accessing at least one array stored in the plurality of memory cells (fig. 3, elements 310, 320.....; col. 7, lines 4-55).

As per claim 2 Diehl teaches the access information includes an array ID for identifying an array of memory cells within the plurality of memory cells (col. 7, lines 4-55).

As per claim 3, Diehl teaches the claimed invention including array information, but fails to teach using array information to calculate offset and boundary (col. 7, lines 25-49).

As per claim 4, Diehl teaches the array information used for offset and boundary calculations includes array height information and array width information (col. 7, lines 4-55).

As per claim 5, Diehl teaches the array information used for offset and boundary calculations further includes array stride information (col. 7, lines 39-49).

As per claim 6, Diehl teaches wherein each of the at least one register contains information that corresponds to an array data structure within a main memory (col. 7, lines 25-49).

As per claim 7, Diehl teaches a cache memory device, comprising: a plurality of memory cells (fig. 1, element 13 shows a memory wherein every memory is made of plurality of cells inherently) ; and at least one register adapted for storing access

information for accessing at least one array (fig. 3, elements 310, 320, ...col. 7, lines 25-49), stored in the plurality of memory cells, wherein the access information includes:

an array ID for identifying an array of memory cells within the plurality of memory cells (fig. 3, elements 310, 320, ...col. 7, lines 25-49);

array height information (register 310, col. 7, lines 39-49);

array width information(register 310, col. 7, lines 39-49); and

array stride information (register 310, col. 7, lines 39-49).

As per claim 8, Diehl teaches the array height information, the array width information and array stride information are adapted for offset and boundary calculations to access the array of memory cells (col. 7, lines 25-49 provides height, width, and stride information).

As per claim 9, Diehl teaches the access information contained within the at least one register corresponds to one or more array data structures within a main memory (col. 7, lines 39-49; register 310 includes information with regard to arrays in the memory).

As per claim 10, Diehl teaches the access information includes: a base address for identifying a contiguous region of memory storage within a main memory (any access information should have base address of where the data is inherently); and array information for boundary and memory offset calculations to access the array of memory cells (col. 7, lines 39-49, the register has all the information such as height, width and stride which is needed to calculate memory offset).

Allowable Subject Matter

4. Claims 11-64 are allowed.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehdi Namazi whose telephone number is 571-272-4209. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mano Padmanabhan 8/30/05

Mehdi Namazi
August 30, 2005

MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER